

WHAT IS CLAIMED IS:

1. A charge pump-type booster circuit boosting an input voltage using a plurality of capacitors and a plurality of electronic switches, comprising:
  - 5 one charge capacitor charged by said input voltage; and  
a plurality of output capacitors generating a voltage multiple of said input voltage using said input voltage and a terminal voltage of said charge capacitor.
- 10 2. The charge pump-type booster circuit as set forth in claim 1, said charge capacitor is connected with at least one electronic switch at both terminals, and said output capacitor is constantly grounded at one terminal.
- 15 3. The charge pump-type booster circuit as set forth in claim 1, wherein said charge capacitor is charged by said input voltage at a first timing, an input power source and a low potential terminal of said charge capacitor are connected to charge a first output capacitor grounded at one side by double of said  
20 input voltage generated at a high potential terminal of said charge capacitor at a second timing, and said low potential terminal of said charge capacitor and not grounded terminal of (N - 2)th output capacitor holding (N - 1) times boosted potential and constantly grounded at one terminal are connected  
25 for charging (N - 1)th output capacitor constantly grounded at one terminal with a voltage which is N times of said input voltage generated at a high potential terminal of said charge

capacitor at third and subsequent Nth timing where N is integer greater than or equal to three.

4. The charge pump-type booster circuit as set forth in claim  
5 1, wherein the input voltage is boosted using a plurality of capacitors and a plurality of electronic switches by  
an operation charging said input voltage by the charge capacitor connected at least one electronic switch at both terminals,  
10 an operation charging the output capacitor constantly grounded at one side, and  
an operation boosting a potential at a high potential terminal of said charge capacitor to a potential higher than that of said charge capacitor by connecting a low potential  
15 terminal of said charge capacitor and a not grounded terminal of the output capacitor grounded at one side.

5. The charge pump-type booster circuit as set forth in claim  
1, wherein not grounded terminal of at least one output capacitor  
20 constantly grounded at one side is connected to a high potential terminal and a low potential terminal of said charge capacitor through a first electronic switch and a second electronic switch, and said first electronic switch and said second electronic switch are prevented from conducting simultaneously.

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6. The charge pump-type booster circuit as set forth in claim  
1, wherein a voltage generated at not grounded terminal of at

least one output capacitor constantly grounded at one side is supplied to the load.

7. The charge pump-type booster circuit as set forth in claim  
5 5, wherein after charging said input voltage to said charge  
capacitor and connecting an input power source and said low  
potential terminal of said charge capacitor, a voltage double  
of an input voltage, which is generated at said high potential  
terminal of said charge capacitor is charged to said output  
10 capacitor constantly grounded at one side by conducting said  
first electronic switch.

8. The charge pump-type booster circuit as set forth in claim  
1, which further comprises a clock generator circuit generating  
15 more than or equal to three phases of clocks for switching the  
electronic switch.

9. The charge pump-type booster circuit as set forth in claim  
1, wherein said electronic switches varying connection are  
20 formed with MOS transistors.

10. The charge pump-type booster circuit as set forth in claim  
1, wherein said electronic switches varying connection are  
formed with thin film transistors.